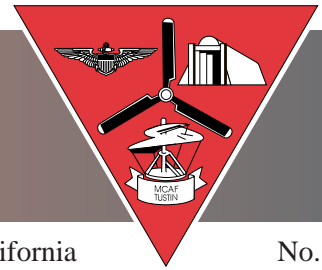


The Environmental Cleanup of Marine Corps Air Facility Tustin



January 1998

Tustin, California

No. 9

Identifying and Selecting Technologies and Alternatives for Groundwater Treatment

With the Remedial Investigation (RI) of the groundwater at Marine Corps Air Facility (MCAF) Tustin completed, the Marine Corps/ Navy is moving to the next phase of the Installation Restoration Program – the Feasibility Study. The Feasibility Study (FS) evaluates remedial technologies and remedial alternatives that eliminate or reduce chemicals present in the groundwater beneath MCAF Tustin. Once the FS is approved by the regulatory agencies, we will distribute the Proposed Plan for groundwater cleanup for public comment. This fact sheet summarizes the four steps of an FS and illustrates how public participation can play a key role in the decision-making process of selecting a cleanup alternative.

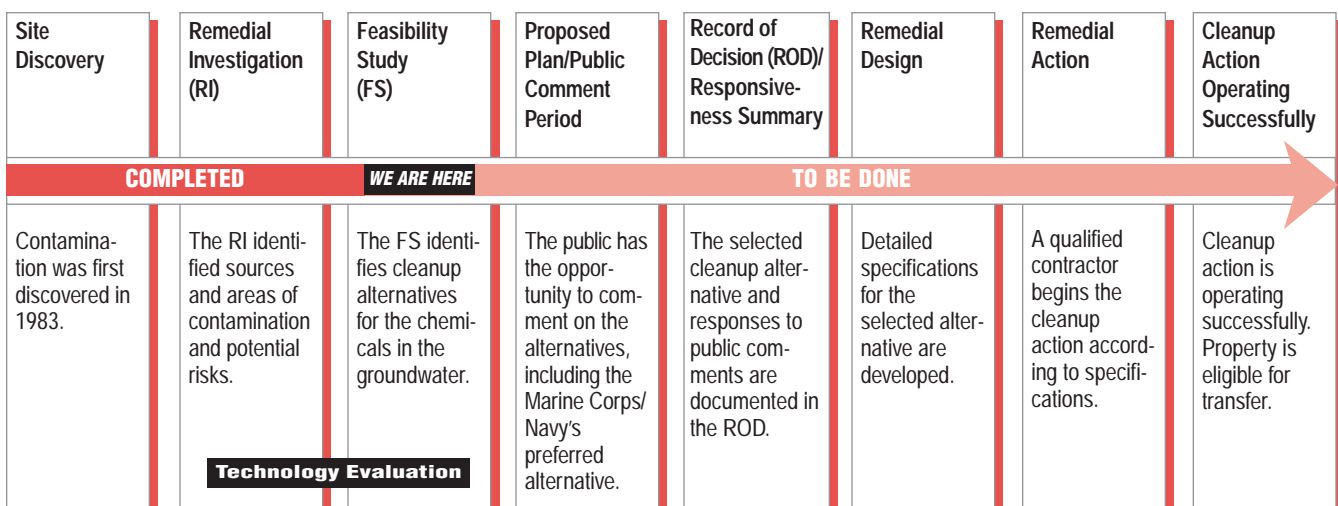
The Feasibility Study – Step-by-Step

The FS is the third phase of the Installation Restoration Program (IRP), as shown in the timeline below. The FS process is divided into four steps (see pages 2 & 3). The first step is the identification of potential technologies, from the universe of possible technologies, that are capable of cleanup given the subsurface conditions at the facility. The universe of possible technologies are those that have been fully field-tested or developed, newer technologies that have had limited field testing, and experimental or emerging technologies that have not been fully evaluated in the field. The second step is the initial screening of potential technologies based on their effectiveness, implementability, and cost. The third step is the combining or grouping of technologies into alternatives that are further evaluated to allow the Marine Corps/Navy to identify a preferred alternative to eliminate or reduce chemicals in the groundwater. The fourth step involves the public and the regulatory agencies in the selection of the final cleanup alternative. This four-step process and the subsequent preparation of a Record of Decision are illustrated on pages 2 and 3.

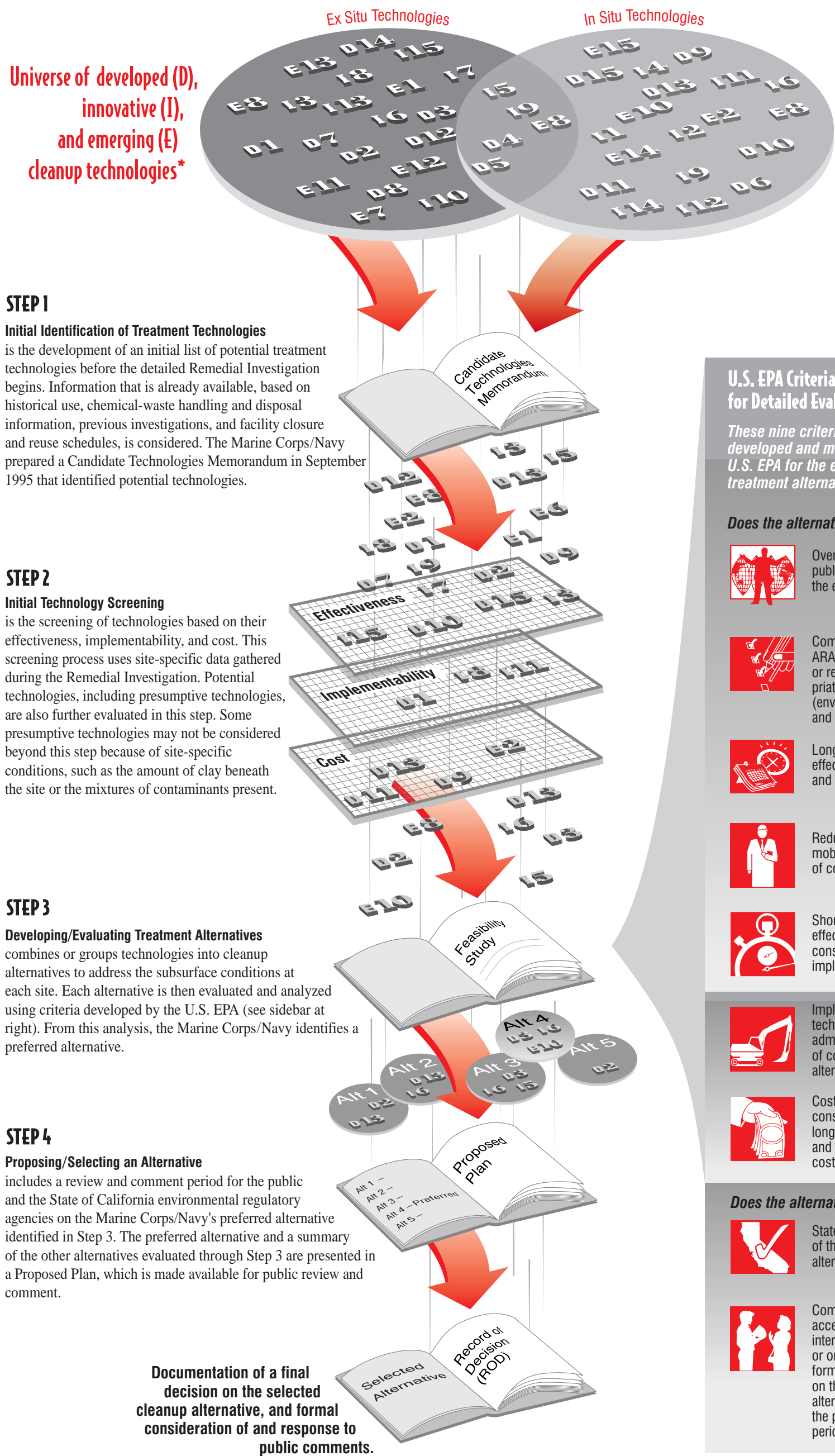
Background

The basewide Remedial Investigation, completed in 1997, confirmed that specific chemicals contributed to groundwater contamination at IRP Sites 3, 12, and 13 South. It also determined that although the impacted shallow groundwater beneath the base *is not currently used for drinking purposes*, it could, in the future, pose a health threat if residents were exposed to the groundwater. The chemicals in the groundwater at Sites 3, 12, and 13 South, which make up part of Operable Unit 1–Basewide Groundwater, could also contribute to future degradation of the shallow groundwater. For these reasons, the Marine Corps/Navy is now considering technologies and treatment options that would meet cleanup, or remediation, goals. An Operable Unit is a site, or a group of sites that is managed as one because of the similarity in environmental conditions (types of chemicals), location, and potential cleanup technologies.

Installation Restoration Program



Step-by-Step Process for Identification and Evaluation of Technologies, and Selection of a Cleanup Alternative



Ex Situ technologies treat contaminants above ground surface and **In Situ** technologies treat contaminants in place or below ground surface.

* **D** – Technologies that have performed successfully in a full-scale field test. **I** – Technologies that have limited full-scale field application at a limited number of sites.

E – Technologies that have performed successfully at the bench/lab-scale stage; no fully evaluated field test has been conducted.

The number following the letters D, I, and E represents one of many possible cleanup technologies.

For Additional Information

The Marine Corps/Navy encourages community involvement in the cleanup decision-making process, an integral part of the environmental restoration program at MCAF Tustin. If you have any questions about environmental activities at the facility, or would like to be added to the mailing list, please feel free to contact any of the following project representatives:

- Ms. Desire L. Chandler, MCAF Tustin, Base Realignment and Closure Coordinator, at 714-726-5836
- Captain Matt Morgan, Base Realignment and Closure Public Affairs Officer, at 714-726-3853
- Ms. Marsha Mingay, Public Participation Specialist, California Environmental Protection Agency, at 562-590-4881
- Mr. Andrew Bain, Community Involvement Coordinator, U.S. EPA, at 800-231-3075

For additional information about the Feasibility Study process depicted on pages 2 and 3, you are encouraged to read the *Draft Feasibility Study Report, Marine Corps Air Station Tustin, California* (Nov. 1996), which can be found at the Information Repository.

Information Repository

Documents relating to the environmental restoration efforts at MCAF Tustin are available for public review at the Information Repository.

University of California, Irvine
Main Library
Government Publications Department
Contact: Yvonne Wilson, 714-824-7362
or 824-6836 for library hours.

Interested community members may also contact the representatives listed on this page to arrange a review of these documents.

Do you like the location of the Repository? Is there a more convenient location?

Let us know!

Clarification

In a previous Fact Sheet we stated that 1,2,3-trichloropropane (1,2,3-TCP) has no acceptable level in drinking water. This may have been interpreted as meaning that no amount in drinking water is acceptable. It is more accurate to state that there is currently no federal drinking water standard established for 1,2,3-TCP in public drinking water systems. The State of California Proposition 65 notification level for 1,2,3-TCP in drinking water is 5 parts per billion.

From time to time, proprietary chemicals have been identified in our investigation and remediation efforts at MCAF Tustin. One such chemical is Freon®, a Dupont company product. The most frequently reported Freon at MCAF Tustin is commonly called Freon 113. The generic name of this chemical is trichloro-trifluoroethane.

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